Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the Matter of	)	
	)	
OFFICE OF ENGINEERING AND TECHNOLOGY REQUESTS INFORMATION ON USE OF 1675 – 1710 MHz BAND	)	**ET Docket No. 10-123**

COMMENTS OF IPWIRELESS, INC.

IPWireless, Inc. ("IPWireless") hereby submits comments in response to the above referenced Public Notice on the use of the 1675 – 1710 MHz band.

I. Background

IPWireless is a developer and manufacturer of mobile broadband network infrastructure and user equipment complying with 3GPP standards, and recognized leader in 3GPP time-division-duplex (TDD) standards, operating in unpaired spectrum.

II. Comments on the Potential Use of the 1675 – 1710 MHz Band

As part of the approximately 300 MHz of spectrum that the Commission intends to open up for broadband services, the 1675 – 1710 MHz band is a valuable frequency resource, being halfway in between the "coverage" spectrum of 700 MHz and the "capacity" spectrum of 2500 MHz. The 35 MHz

of available spectrum is well suited to technologies such as 3GPP Long Term Evolution (LTE), which is able to operate in unpaired spectrum using a range of RF channel bandwidths up to 20 MHz.

The lower frequency of this spectrum relative to PCS, AWS, WCS and EBS/BRS bands allows for increased coverage per cell, especially in rural environments, and reduces network cost by reducing the number of cells required to provide coverage of a given area. Making this spectrum available will facilitate the implementation of the national broadband plan, especially in underserved areas.

However, the coverage benefits of this frequency would be reduced if it were to be paired with frequencies above 2 GHz.

The 1675 – 1710 MHz band is by its nature unpaired, and can therefore be utilized by TDD technologies or paired with another band for use by frequency-division-duplex (FDD) technology.

Time-Division-Duplex technologies are supported by the 3GPP standards, with UMTS TDD (TD-CDMA) in Release 7 and TD-LTE (TDD) in Release 8.

As a company with experience in both FDD and TDD technologies, we see that the two duplex techniques result in systems with similar performance, such that there is no longer any technical reason for regulations to favor one duplex method over the other. As an example, 3GPP Release 7 TDD is well proven in the 400 cell site "NYCWiN" network operated by the City of New York, as well as other networks around the world operating in environments ranging from dense urban to rural.

In the past, the equipment ecosystems surrounding the major standards families (3GPP and 3GPP2) have been predominantly FDD, providing a commercial incentive for FDD technology. However, this has changed with the standardization of TDD in 3GPP Release 8 LTE (known as TD-LTE) and also in 802.16e (Wimax). TD-LTE and FD LTE have equal status in the 3GPP standards. TD-LTE is being deployed by the

world's largest mobile operator, China Mobile, and has attracted a wide range of network infrastructure, chipset and user equipment manufacturers to commit to support this standard.

Should the band be required to support both new services and existing services on a non-interference basis, then the use of TDD technology can facilitate coexistence. The reciprocal channel of TDD allows both the base station and the user equipment to sense the presence of other services, to support interference avoidance techniques if required.

III. Conclusion

The unpaired 1675 – 1710 MHz band is inherently suited to time-division-duplex (TDD) technology. TDD technology is now well proven. The support of TD-LTE in the 3GPP standards, and the planned deployment of TD-LTE by China Mobile should ensure a viable ecosystem of equipment for operators who may use this band.

Pairing of this band with higher frequencies would reduce the propagation advantages of this frequency and the benefits to the National Broadband Plan and rural America.

The use of TDD technology in the 1675 – 1710 MHz band is technically and commercially feasible, and avoids any complexity and delays in pairing this band with another band.

Respectfully submitted,

IPWireless, Inc.

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